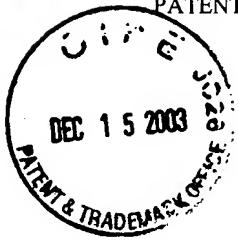


PATENT



Attorney Docket No. A-72323/DJB/VEJ  
Attorney Matter No. 465377-01089  
Application No. 10/651,057

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

**Purnendu K. DASGUPTA et al.**

Application No. 10/651,057

Filed: **August 27, 2003**

For: **DENUDER ASSEMBLY FOR  
COLLECTION AND REMOVAL  
OF SOLUBLE ATMOSPHERIC  
GASES**

Art Unit: **To be assigned**

Examiner: **To be assigned**

Docket No.: **A-72323/DJB/VEJ**

*Certificate of Mail (37 C.F.R. § 1.8(a))*

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal service on the date shown below with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 12-11-03.

*Patricia A. Diehl*  
Patricia A. Diehl

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

This Information Disclosure Statement is hereby submitted in accordance with 37 CFR 1.98 and pursuant to Applicant's continuing duty under 37 CFR 1.56 to bring any information which may be material to patentability of this application to the Examiner's attention. The Examiner's attention is directed to the reference(s) cited on the accompanying substitute for form PTO-1449A/PTO. Copies of the cited references are enclosed, unless otherwise noted below. It is further understood that the Examiner will also consider information that was cited or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. Notice of April 20, 1992, 1138 OG 37-41, at 37; M.P.E.P. § 609 (I)(A)(2).

Applicant makes no representation that a search has been conducted by the Applicant, or that there is not possibly more relevant art. Applicant also makes no representation that the

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Attorney Docket No. A-72323/DJB/VEJ  
Attorney Matter No. 465377-01089  
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information submitted herewith is in fact material to patentability. The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 11 O.G. 13-25, at 25.

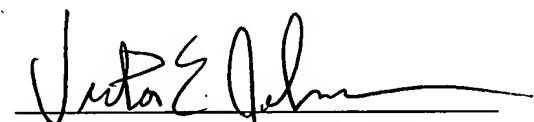
This Information Disclosure Statement is being filed within three months of the filing date of a national application other than a continued prosecution application, within three months of the date of entry of a national stage, before the mailing date of a first Office action on the merits, or before the mailing date of a first Office action after the filing date of request for continued examination. 37 C.F.R. § 1.97(b). No fee is required.

The Commissioner is hereby authorized to charge any underpayment of the following fees associated with this communication, including any necessary fees for extension of time, or credit any overpayment to Deposit Account No. 50-2319 (Matter No. 465377-01089; Docket No. A-72323/DJB/VEJ).

Respectfully submitted,

Date: 12/11/2003

By:

  
\_\_\_\_\_  
Victor E. Johnson, Reg. 41,546  
/for/ David J. Brezner, Reg. No. 24,774  
Filed Under 37 C.F.R. § 1.34(a)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

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of

3

**Complete if Known**

Application Number	<b>10/651,057</b>
Filing Date	<b>August 27, 2003</b>
First Named Inventor	<b>Purnendu K. DASGUPTA et al.</b>
Group Art Unit	<b>To be assigned</b>
Examiner Name	<b>To be assigned</b>

Attorney Docket Number

**A-72323/DJB/VEJ****U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	<b>A1</b>	<b>4,999,098</b>	<b>03-12-1991</b>	<b>Pohl et al.</b>	
	<b>A2</b>	<b>6,033,459</b>	<b>03-07-2000</b>	<b>Hase</b>	
	<b>A3</b>	<b>6,497,136 B2</b>	<b>12-24-2002</b>	<b>Satou</b>	
	<b>A4</b>	<b>6,506,345 B1</b>	<b>01-14-2003</b>	<b>Lee et al.</b>	
	<b>A5</b>				
	<b>A6</b>				
	<b>A7</b>				
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	<b>A11</b>				
	<b>A12</b>				
	<b>A13</b>				
	<b>A14</b>				
	<b>A15</b>				

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	<b>A16</b>					
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	<b>A26</b>					
	<b>A27</b>					

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**INFORMATION DISCLOSURE  
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Application Number	10/651,057
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First Named Inventor	Purnendu K. DASGUPTA et al.
Group Art Unit	To be assigned
Examiner Name	To be assigned
Attorney Docket Number	A-72323/DJB/VEJ

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	A28	ALLEGRINI et al., <i>Carbon-coated annular denuders and ion chromatographic measurements for the determination of nitrogen-containing species (NO<sub>2</sub> and NO<sub>y</sub>) in remote atmospheres</i> , J. Chromatography A, 1999, 846, pp. 265-268.	
	A29	BENNER et al., <i>Comparison of Annular Denuder and Filter Pack Collection of HNO<sub>3</sub>(g), SO<sub>2</sub>(g), and Particulate-Phase Nitrate, Nitrite and Sulfate in the South-West Desert</i> , Atmospheric Environment, 1991, 25A, pp. 1537-1545.	
	A30	BORING et al., <i>Field Measurement of Acid Gases and Soluble Anions in Atmospheric Particulate Matter Using a Parallel Plate Wet Denuder and an Alternating Filter-Based Automated Analysis System</i> , Anal. Chem., 2002, 74, pp. 1256-1268.	
	A31	BORING et al., <i>Wet effluent parallel plate diffusion denuder coupled capillary ion chromatograph for the determination of atmospheric trace gases</i> , Talanta, 1999, 48, pp. 675-684.	
	A32	DASGUPTA et al., <i>A Multiple Parallel Plate Wetted screen Diffusion Denuder for High-Flow Air Sampling Applications</i> , Anal. Chem. 1997, 67, 24, pp. 5018-5023.	
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	A35	De SANTIS, <i>Comment on Wet Effluent Denuder Coupled Liquid/Ion Chromatography Systems: Annular and Parallel Plate Denuders</i> , Anal. Chem., 1994, 66, pp. 3503-3504.	
	A36	FAN et al., <i>Continuous Automated Determination of Atmospheric Formaldehyde at the Parts Per Trillion Level</i> , Anal. Chem., 1994, 66, pp. 551-556.	
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	A38	GENFA et al., <i>Hematin as a Peroxidase Substitute in Hydrogen Peroxide Determinations</i> , Anal. Chem., 1992, 64, pp. 517-522.	
	A39	HWANG et al., <i>Thermodynamics of the Hydrogen Peroxide-Water System</i> , Environ. Sci. Technol., 1985, 19, 3, pp. 255-258.	
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	A41	KEUKEN et al., <i>Simultaneous Sampling of NH<sub>3</sub>, HNO<sub>3</sub>, HCl, SO<sub>2</sub> and H<sub>2</sub>O<sub>2</sub> in Ambient Air by a Wet Annular Denuder System</i> , Atmospheric Environment, 1988, 22, 11, pp. 2541-2548.	
	A42	LI et al., <i>Measurement of Atmospheric Formaldehyde with a Diffusion Scrubber and Light-Emitting Diode--Liquid- Core Waveguide Based Fluorometry</i> , Field Anal. Chem. & Tech., 2001, 5(1-2), pp. 2-12.	

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	10/651,057
				Filing Date	August 27, 2003
				First Named Inventor	Purnendu K. DASGUPTA et al.
				Group Art Unit	To be assigned
				Examiner Name	To be assigned
Sheet	3	of	3	Attorney Docket Number	A-72323/DJB/VEJ

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

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	A43	LI et al., <i>Measurement of Atmospheric Hydrogen Peroxide and Hydroxymethyl Hydroperoxide with a Diffusion Scrubber and Light-Emitting Diode-Liquid- Core Waveguide Based Fluorometry</i> , Anal. Chem., 2000, 72, 21, 5338-5347.	
	A44	LI et al., <i>Measurement of gaseous hydrogen peroxide with a liquid- core waveguide chemiluminescence detector</i> , Analytica Chimica Acta, 2001, 442, 63-70.	
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	A48	ROSMAN et al., <i>Laboratory and field investigations of a new and simple design for the parallel plate denuder</i> , Atmospheric Environment, 2001, 35, pp. 5301-5310.	
	A49	Sakamoto et al., <i>Development of an automatic continuous analyzer for water-soluble gases in air by combining an artificial lung with an ion chromatograph</i> , Atmospheric Environment, 2002, 36, pp. 441-448.	
	A50	SIMON et al., <i>Continuous Automated Measurement of Gaseous Nitrous and Nitric Acids and Particulate Nitrite and Nitrate</i> , Environmental Sci. & Tech., 1995, 29, pp. 1534-1541.	
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	A52	SIMON et al., <i>Wet Effluent Denuder Coupled Liquid/Ion Chromatography Systems: Annular and Parallel Plate Denuders</i> , Anal. Chem. 1993, 65, pp. 1134-1139.	
	A53	TODA et al., <i>Fluorometric Field Instrument for Continuous Measurement of Atmospheric Hydrogen Sulfide</i> , Anal. Chem., 2001, 73, pp. 5716-5724.	
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	A55	ZHANG et al., <i>Evaporative Losses of Fine Particulate Nitrates During Sampling</i> , Atmospheric Environment, 1992, 26A, No. 18, pp. 3305-3312.	
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